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10/520,689	08/11/2005	Jan-Erik Nilsskog	4747-4000	9868
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EXAMINER				
KHARE, ATUL P				
ART UNIT		PAPER NUMBER		
4191				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/520,689

Applicant(s)

NILSSKOG ET AL.

Examiner

ATUL KHARE

Art Unit

4191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 July 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-14 is/are rejected.
7) ☒ Claim(s) 5, 10 and 14 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/ISD)
Paper No(s)/Mail Date 6 January 2005
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Summary

1. This is a first office action on the merits. The preliminary amendment filed January 6, 2005 has been entered.
2. Claims 1-14 are pending.

Specification

3. The disclosure is objected to because of the following informalities: The citation NO 301243 is incorrectly referenced as NO 307243 at page 1 paragraph 0015. Appropriate correction is required.
4. The use of the trademark PLATON DE25 has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Objections

5. Claim 10 is objected to because of the following informalities: the term "containers" in the claim is preceded by a hyphen. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2,13, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

9. In the present instance, claim 2 recites the broad recitation of the centre distance between the studs as being in the range of 20-250 mm, and the claim also recites a preferable distance of 45-58 mm which is the narrower statement of the range/limitation. Claim 2 also recites the broad recitation of the height of the studs as being in the range of 5-50 mm, and the claim also recites a preferable distance of 20-26 mm which is the narrower statement of the range/limitation. Claim 2 also recites the broad recitation of the distance between the base of the stud side walls as being in the range of 0-150 mm,

and the claim also recites a preferable distance of 5-12 mm which is the narrower statement of the range/limitation.

10. Claim 13 recites the broad recitation of using a studded plate as formwork for denticulation of cast joints between large concrete components such as in bridges, tunnels, and in the walls of buildings, dams, or containers, and the claim also recites that the use of a studded plate as a formwork for denticulation of cast joints more particularly in boxed walls on a free balanced cantilever which is the narrower statement of the range/limitation.

11. Claim 14 recites the exact same broad and narrow recitations as claim 2 with respect to the dimensions of the studded plate, and is therefore rejected for the same reason set forth above in the rejection of claim 2.

12. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

13. Claims 13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

14. Claims 13 and 14 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

15. Claim 13 provides for the use of a studded plate as a formwork for denticulation of cast joints, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass.

16. Claim 14 provides for the use of the studded plate of claim 13, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

18. Claims 1, 4-8, and 10-13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by "System PLATON: Denticulation of concrete casting joints in balanced cantilever bridge constructions," published June 6, 2000.

19. Claim 1 is taught at the image at the top of page 2 whereby a method of denticulation of a concrete joint is seen being used between a first and a second cast section by placing a studded plate at the formwork close of the first cast section and removing it before the second section is cast. On the left-hand side of the image, a concrete joint having denticulations has been cast. In the center of the image, a studded plate can be seen attached at the formwork close of a concrete joint that has not yet

been cast. Clearly, a method is being used whereby a studded plate is used at the formwork close of the first cast section. The studded plate is then removed before the next section is cast in place.

20. Claim 4 is taught at the image at page 3 whereby a studded plate that has bridges or backs between the studs is seen being used. Applicant's disclosure depicts bridges or backs as being small channels connecting each stud that makes up the studded plate. System PLATON shows exactly that being used.

21. Claim 5 is taught at the image on page 3 whereby a studded plate that has a shape equivalent to applicant's description of a PLATON DE25 studded plate is seen being used. Applicant's disclosure describes their invention as having a shape equivalent to the PLATON DE25 plate. System PLATON shows exactly that being used.

22. Claim 6 is taught at the image at page 2 of the prior art whereby a studded plate that has studs that are square or polygonal is seen being used.

23. Claim 7 is taught at the image at page 2 of the prior art whereby a studded plate that has studs positioned in relation to each other in a symmetrical pattern is seen being used.

24. Claim 8 is inherent at the "other area of use" section at page 7 column 2 of the prior art where denticulation of concrete joints is cited as being used in a number of concrete constructions such as in large buildings, tunnel entrances, silos, storage installments, pre-cast elements, and dams, which are all examples of constructions in which the pattern of the studded plate is oriented either parallel to or square to the direction of the primary shear.

25. Claim 10 is taught at the "other area of use" section on page 7 column 2 of the prior art whereby the claimed method of denticulation done in tunnels, or walls for buildings, dams, or containers is cited. The element of claim 10 stating a method of denticulation done on cast joints in bridges is cited on page 1 of the prior art in the title of the publication: "System PLATON: Denticulation of concrete casting joints in balanced cantilever bridge constructions."

26. Claim 11 is taught at page 2 column 1 paragraph four under the "background" section of the prior art, whereby the claimed method of denticulation is described as being done on cast joints in box walls on a balanced cantilever.

27. The element of claim 12 regarding denticulation of prefabricated components is taught at page 5 paragraph three whereby a method of denticulation as being performed by prefabrication is cited. The element of claim 12 regarding denticulation on-site is taught at the top image on page 4 depicting the use of denticulation of concrete joints on-site in a balanced cantilever bridge. The element of claim 12 regarding denticulation on-site is also taught by the title of the publication: "System PLATON: Denticulation of concrete casting joints in balanced cantilever bridge constructions."

28. Claim 13 is taught at the "other area of use" section at page 7 column 2 of the prior art whereby the use of a studded plate as formwork for denticulation of cast joints is cited as being done in tunnels, or walls for buildings, dams, or containers. The element of claim 13 stating the use of a studded plate as formwork for denticulation of cast joints done in bridges is cited on page 1 of the prior art in the title of the publication

"System PLATON: Denticulation of concrete casting joints in balanced cantilever bridge constructions."

Claim Rejections - 35 USC § 103

29. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

30. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

31. Claims 2 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over System PLATON.

32. With respect to claims 2 and 14, at page 7 in the "technical data" section, System PLATON discloses a denticulation depth of 23 mm, which, more specifically, is interpreted to be defined as the height of the studs. Therefore, the denticulation depth in System PLATON lies within the claimed range of 5-50 mm for stud height. In addition, at page 5 paragraph 4, System PLATON discloses that the product is supplied in widths from 125 mm to 505 mm, which, more specifically, is interpreted to be defined as the distance between the center of the studs. Therefore, the range for product width in

System PLATON overlaps with the claimed range of 20-250 mm. System PLATON does not appear to disclose the distance between the base of the stud side walls.

33. At the time of the invention it would have been *prima facie* obvious to one of ordinary skill in the art to make a studded plate with a distance between the base of the stud side walls that overlaps with the claimed range of 0-150 mm because of the other overlapping parameters discussed above in order to reduce the degree and effect of zones of weakness in the cast joint (page 2 column 1 paragraph 2 of System PLATON).

34. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over System PLATON in view of JOHNSEN US PATENT 5,044,821.

35. System PLATON discloses at the image on page 3 as well as at the image at the top left of page 7 a method of denticulation wherein the studs appear to have a shape equivalent to that which is described by applicant to be a PLATON DE25 plate. However, System PLATON does not explicitly state an inclination angle or inclination angle range with respect to the stud side wall. System PLATON also does not depict in any drawings an inclination angle with respect to the stud side wall.

36. At the time of the invention, it would have been *prima facie* obvious to one of ordinary skill in the art to include the embodiment depicted at Figures 1-3 on pages 2 and 3 of JOHNSEN US 5,044,821 in the method of denticulation of System PLATON wherein the studs have the shape disclosed therein. On page 9 column 3 lines 29-31, JOHNSEN describes the "protrusions" or "knobs" (or studs, as applicant describes them) from Figures 1-3 as having the shape of a flat pyramid having a flat top surface and four sloping walls which at the bottom merges with the sheet (or plate, as applicant

describes it). At the time of the invention, the description and drawings from JOHNSEN US 5,044,821 would reasonably teach one of ordinary skill in the art that the applicant's claimed range of the inclination angle with respect to the stud side walls was a preferred embodiment of the studded plate (MPEP 2125).

37. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over System PLATON, in view of SCHERTZBERG et al. US 20060082024.

38. System PLATON discloses the elements of the invention as discussed above regarding denticulation of a concrete joint. System PLATON does not appear to disclose a method of denticulation using a studded plate toward the first cast section comprising a hose or string of swellable rubber that is partly cast into the first cast section. However, SCHERTZBERG et al. discloses at page 1 column 1 paragraph 0002 the use of an injection hose to fill voids during concrete construction. This injection hose is described at page 1 column 1 paragraph 0004 as being embedded in a concrete cast section in order to fill voids left in concrete joints.

39. At the time of the invention, it would have been *prima facie* obvious to one of ordinary skill in the art to modify the method of denticulation of concrete joints described in System PLATON to include the injection hose embedded in the concrete sections of SCHERTZBERG et al. At the time of the invention, there was a well-established need to fill voids left in concrete joints during construction with materials such as epoxy (page 1 column 1 paragraph 0004 of SCHERTZBERG et al.), and using an injection hose to fill these voids was known by a person having ordinary skill in the art to be an effective method.

Conclusion

40. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ATUL KHARE whose telephone number is (571)270-7608. The examiner can normally be reached on Monday-Thursday 7:30 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Barbara Gilliam can be reached on (571)272-1330. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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